

Waste Generator Guidance for Completing the TRU Waste Storage Record (TWSR)

Los Alamos National Laboratory
Laboratory Implementation Guidance LIG404-00-01.2
Issue Date: 11/26/97 (Revision Date: 03/26/01)

Non-Mandatory

1. INTRODUCTION

1.1 Overview

The Los Alamos National Laboratory (Laboratory) requires that transuranic (TRU) waste generators complete the TRU Waste Storage Record (TWSR) for the purpose of requesting storage of TRU and TRU-mixed wastes at the Laboratory's TRU waste storage facility located at TA-54, Area G (LIR404-00-05).

The Office of Institutional Coordination (OIC) for this LIG is the Waste Management Policies and Procedures Committee.

1.2 In This Document

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2. PURPOSE

This document provides guidance to transuranic waste generators on the completion of the TRU Waste Storage Record (Form FMU64-F272 or FMU64-F272E). A TWSR should be completed by the generator and approved by FWO-SWO personnel for each TRU waste container prior to the waste being transported to the TRU waste storage facility at TA-54, Area G.

3. SCOPE

This document is limited to guidance for the completion of the TWSR and applies to all TRU waste generators at the Laboratory.

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4. ACRONYMS

DP	Defense Programs
FWO-SWO	Facilities and Waste Operations - Solid Waste Operations
SWB	standard waste box
TRU	transuranic
TWSR	TRU Waste Storage Record
WPF	Waste Profile Form
WE	waste exception

5. GUIDANCE

This form should be completed in blue or black ink. All entries should be legibly printed or typed.

5.1 Changes	Any changes should be made by drawing a single line through the incorrect entry and inserting the correct entry in the nearest open space. All changes should be initialed and dated.
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5.2 Waste Package Serial Numbers	A bar code label provides a unique waste package serial number for each TWSR and its associated TRU waste package. The TWSR should have a small bar-coded serial number on the front. The number on the TWSR should match the serial number used on any supplemental forms provided by the waste generator.
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5.3 Information on the TWSR	The following table summarizes the information that should be included when completing the TWSR.
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TABLE 1. TWSR GUIDANCE

Section	Title or Subsection	Recommended Action
1	Generator's Pre-use Visual Inspection	
1	Purchase Order #	Enter the purchase order number under which the waste container was procured.
1	Inspected Items	Inspect container before use. Check box for each item found to be free of damage. If any of these items are damaged, the container is unacceptable for packaging of TRU waste.
1	Signature, Printed Name, Date	Enter the signature and printed name of the person completing Section 1. Enter the date (MM/DD/YY) that this section was completed. If approved by FWO-SWO to use form FMU64-F272E (electronically generated form), the signature may be replaced by a Z number.
2	Generator's Package Information	
2	Group, Technical Area, Building	Enter information for the generating group, technical area, and building number.
2	Cost Center/ Program Code/ Cost Acct./ Work Pkg.	Enter a valid cost center, program code, cost account and work package.
2	Additional information	Use this space to provide additional information, if desired.
2	Container	Check one and only one box identifying the container type. If the "Other" box is checked, an approved WE Form should accompany the TWSR and the "Additional Information" box should be used to provide a description of the container. The description should include the volume and the tare weight of the container.
2	Liner	Check one and only one box.
2	Internal Shielding	If "none" is marked, no other entry should be made in this section. If a shielding type is entered, enter the "Thickness" in inches, in scientific notation. More than one shielding type may be entered. Each type should have an entry for thickness.

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Section	Title or Subsection	Recommended Action
2	Carbon Filter ID	<p>Enter carbon filter ID numbers for all drums and standard waste boxes (SWBs). A 55-gallon drum should have at least one filter and an SWB should have at least two filters.</p> <p>When “other” is checked for container type, the number of filters needed is handled on a case-by-case basis. Contact the Waste Services Office at 5-6158.</p>
2	Radionuclide Content	<p>Nuclide. Enter the radionuclides present in the waste. At least one entry should be a transuranic radionuclide.</p> <p>“MFP” for “mixed fission products,” “MAP” for “mixed activation products;” or material types are unacceptable entries for nuclides.</p> <p>Amount. Enter the activity in Curies or amount in grams of each radionuclide listed, in scientific notation.</p> <p>Uncertainty. Enter the uncertainty, in scientific notation, associated with the Curies or grams of each radionuclide present.</p> <p>Curies or grams. Enter C for Curies or M for grams.</p>
2	Waste Profile Number	Enter a valid Waste Profile Number.
2	Process Batch Code	For waste that is produced in batches, enter a process batch code.
2	Gross Weight	<p>Enter the gross weight in pounds using scientific notation.</p> <p>The maximum gross weight in containers should not exceed:</p> <ul style="list-style-type: none"> • 4000 lb for SWBs • 900 lb for 55-gallon drums • 1450 lb for 85-gallon overpacks
2	Net Weight	<p>Enter the net weight in pounds using scientific notation.</p> <p>The entry should be equal to the gross weight of the container minus the tare weight of the container.</p>
2	Shipping Category	<p>Enter the 10-digit numeric shipping category.</p> <p>Contact the TRU Waste Certification Official for assistance.</p>

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Section	Title or Subsection	Recommended Action
2	LANL Waste Stream ID	Enter the alphanumeric LANL Waste Stream ID. Contact the TRU Waste Certification Official for assistance.
2	TRUCON Code	Enter the four-digit alphanumeric TRUCON Code. Containers checked as “other” are handled on a case-by-case basis and may not require a TRUCON code. Contact the Waste Services Office at 5-6158 for assistance.
2	Date Closed	Enter the final date the container was closed (i.e. no additional waste added) in the form MM/DD/YY.
2	DP / Non-DP	Check one and only one box stating whether or not the waste was generated in support of Defense Programs. Note: There is currently no disposal path for non-DP waste. If waste is non-DP, documentation of DOE approval for generation of the waste should be attached to the TWSR.
2	Nonradioactive Hazardous Materials	Name. Enter the name of any regulated hazardous constituent(s) as identified on the associated WPF. If no hazardous constituents are present (i.e., this is not TRU-mixed waste), enter “None.” EPA Code. If hazardous constituents are present in the waste, enter the applicable EPA code(s) assigned to the WPF. Quantity. For each EPA Code listed, enter the associated quantity in grams using scientific notation. Accumulation Start Date. If hazardous constituents are present in the waste, enter the accumulation start date in the form MM/DD/YY.

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Section	Title or Subsection	Recommended Action
2	Printed Name, Signature, Date	<p>NOTE: The person responsible for the completion of this section should be a Waste Management Coordinator.</p> <p>Enter the signature and printed name of the person completing Section 2. Enter the date (MM/DD/YY) this section was completed.</p> <p>NOTE: If approved by FWO-SWO to use form FMU64-F272E (electronically generated form), the signature may be replaced by a Z number.</p>
3	Generator Site Health Physics Information	
3	Gamma Dose Rate (contact)	<p>Enter the contact gamma dose rate in mrem/hr using scientific notation.</p> <p>Survey Date. Enter the date the gamma survey was performed in the form MM/DD/YY.</p> <p>Survey Meter Model. Enter the gamma survey meter model.</p> <p>Property Number. Enter the gamma survey meter property number.</p> <p>Calibration Void Date. Enter the gamma survey meter calibration void date in the form MM/DD/YY.</p> <p>The survey is invalid if the calibration void date is on or before the survey date.</p>
3	Neutron Dose Rate (contact)	<p>Enter the contact neutron dose rate in mrem/hr using scientific notation.</p> <p>Survey Date. Enter the date the neutron survey was performed in the form MM/DD/YY.</p> <p>Survey Meter Model. Enter the neutron survey meter model.</p> <p>Property Number. Enter the neutron survey meter property number.</p> <p>Calibration Void Date. Enter the neutron survey meter calibration void date in the form MM/DD/YY.</p> <p>The survey is invalid if the calibration void date is on or before the survey date.</p>

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Section	Title or Subsection	Recommended Action
3	Total Dose Rate (contact)	Enter the total contact dose rate in mrem/hr using scientific notation. Usually, the total dose rate equals the sum of the gamma and neutron dose rates, but entries greater than the sum may occur when rounding up. The maximum acceptable total surface dose rate is 2.0E+1 mrem/h. If unable to meet this limit, contact the Waste Services Office at 5-6158.
3	Total Dose Rate (1 meter)	Enter the total dose rate at one meter in mrem/hr using scientific notation.
3	Alpha Contamination	Enter the amount of alpha contamination present on the exterior of the waste package in dpm/100 cm ² using scientific notation. This entry should not exceed 2.0E+1 dpm/100 cm ² .
3	Beta-Gamma Contamination	Enter the amount of beta-gamma contamination present on the exterior of the waste package in dpm/100 cm ² using scientific notation. This entry should not exceed 9.9E+2 dpm/100 cm ² .
3	Printed Name, Date, Signature	Enter the signature and printed name of the person completing Section 3. Enter the date (MM/DD/YY) this section was completed. The person responsible for the completion of this section of the form should be a Radiological Control Technician. NOTE: If approved by FWO-SWO to use form FMU64-F272E (electronically generated form), the signature may be replaced by a Z number.

NOTE: The remaining portions of this form, Sections 4 through 10, are to be completed by FWO-SWO personnel only.

6. ATTACHMENTS AND APPENDICES

Attachment A. Example of TWSR (Form FMU64-F272)

Waste Generator Guidance for Completing the TRU Waste Storage Record (TWSR)

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ATTACHMENT A. EXAMPLE OF TWSR (FORM FMU64-F272)

**TRU WASTE
STORAGE RECORD**

**WASTE PACKAGE
SERIAL NUMBER**

1. GENERATOR'S PRE-USE VISUAL INSPECTION

Purchase Order #		Inspected Items		
<i>This container has been visually inspected according to approved procedures and has been found to be free of damage that would make it unsuitable for TRU waste packaging.</i>		<input type="checkbox"/> Ring, Bolt, and Nut	<input type="checkbox"/> Chime	<input type="checkbox"/> Dents
		<input type="checkbox"/> Lid and Gasket	<input type="checkbox"/> Gouges	<input type="checkbox"/> Paint
Printed Name	Signature			Date

2. GENERATOR'S PACKAGE INFORMATION

Group	Technical Area	Building	Cost Center	Program Code	Cost Acct.	Work Pkg.
Additional Information			RADIONUCLIDE CONTENT			
			Nuclide	Amount	Uncertainty	C=Curie M=Gram
				. E + -	. E + -	
Container		Liner		. E + -	. E + -	
<input type="checkbox"/> Steel Drum (55 gal.)	<input type="checkbox"/> None			. E + -	. E + -	
<input type="checkbox"/> Steel Drum (85 gal. Overpack)	<input type="checkbox"/> 90 mil liner			. E + -	. E + -	
<input type="checkbox"/> Standard Waste Box	<input type="checkbox"/> 125 mil liner			. E + -	. E + -	
<input type="checkbox"/> Standard Waste Box Overpack	Internal Shielding			. E + -	. E + -	
<input type="checkbox"/> RH Canister	<input type="checkbox"/> None			. E + -	. E + -	
<input type="checkbox"/> Other (Call TWCO)	Type	Thickness (in.)		. E + -	. E + -	
Carbon Filter ID	01			. E + -	. E + -	
	02			. E + -	. E + -	
Waste Profile Number				. E + -	. E + -	
Process Batch Code			<input type="checkbox"/> DP <input type="checkbox"/> NON-DP If Non-DP waste, attach DOE approval documentation.			
Gross Weight (lb.)			NONRADIOACTIVE HAZARDOUS MATERIALS			
Net Weight (lb.)			Name	EPA Code	Quantity (g)	
Shipping Category					. E + -	
LANL Waste Stream ID					. E + -	
TRUCON Code					. E + -	
Date Closed (MM/DD/YY)			Accumulation Start Date (MM/DD/YY)			
<i>The data in this section were collected, and waste described herein was packaged and labeled according to approved procedures.</i>						
Printed Name			Signature			Date

3. GENERATOR SITE HEALTH PHYSICS INFORMATION

Gamma Dose Rate (mrem/h) (contact)	. E + -	Survey Date	Survey Meter Model	Property Number	Calibration Void Date
Neutron Dose Rate (mrem/h) (contact)	. E + -	Survey Date	Survey Meter Model	Property Number	Calibration Void Date
Total Dose Rate (mrem/h) (contact)	. E + -	The data in this section were collected according to approved procedures.			
Total Dose Rate (mrem/h) (1 meter)	. E + -				
Alpha Contamination (dpm/100cm ²)	. E + -	Printed Name			
Beta-Gamma Cont. (dpm/100cm ²)	. E + -	Signature			Date

4. TRU WASTE MANAGEMENT REVIEW/AUTHORIZATION

The data package for this waste has been reviewed. Based on the information provided, this waste meets the WAC requirements for storage at TA-54.	Printed Name	Date
	Signature	

5. PRELOAD VISUAL INSPECTION

This waste package was visually inspected prior to transport according to approved procedures. It meets WAC packaging and labeling requirements and is free from obvious damage and defects.	Printed Name	Date (Inspection Valid for 30 Days)
	Signature	

6. RECEIVING SITE HEALTH PHYSICS INFORMATION

Gamma Dose Rate (mrem/h) (contact)	• E +	Survey Date	Survey Meter Model	Property Number	Calibration Void Date
Neutron Dose Rate (mrem/h) (contact)	• E -	Survey Date	Survey Meter Model	Property Number	Calibration Void Date
Total Dose Rate (mrem/h) (contact)	• E +	The data in this section were collected according to approved procedures.			
Total Dose Rate (mrem/h) (1 meter)	• E -				
Alpha Contamination (dpm/100cm ²)	• E +	Printed Name			
Beta-Gamma Cont. (dpm/100cm ²)	• E -	Signature			Date

7. STORAGE SITE INFORMATION

Received By (Initials)	Date Received	ORIGINAL STORAGE DATA		
This waste package was visually inspected and found to be properly labeled and in good condition. It was accepted and inspected according to approved procedures.	Building Number	Layer	Row Number	
		Column Number	Date Stacked (MM/DD/YY)	
Printed Name	Date	Printed Name	Date	
Signature		Signature		

8. WASTE ACCEPTANCE OFFICE

Initials/Date	WE Description

NCR Number	Initials/Date	NCR Description

9. DATA MANAGEMENT INFORMATION

	M	M	D	D	Y	Y	
Data Entered in Database							Printed Name
Date Entry Verified							Signature

10. DUPLICATE COPY

	M	M	D	D	Y	Y	
Date Duplicate Filed							Printed Name
							Signature